# CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2008 Certified Company

JAS-ANZ
ISO 9001:2000 CERTIFIED


Job No.: CQCE/BBMP/GNR/W.No.14/2017-18 Date : 26.08.2017

## GRADATION FOR WMM
## MORTH TABLE-400-11

Client : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

Agency : **Sri. G.N Ramesh,** Contractor, Bangalore.

Name of Work : Potholes filling in main and cross roads of Bagalagunte in Ward No.14 in Dasarahalli Sub Division, BBMP, Bangalore.

Date of Testing : 26.08.2017

Material Type : Wet Mix Macadam

Oven Dry.Wt 12713

| Is Sieve Size in mm | Weight Retained (gm) | Cumulative Weight Retained (gm) | Cumulative % of Retained | Cumulative % of Passing | Spec.Limits |
|---|---|---|---|---|---|
| 53 | 0 | 0 | 0 | 100 | 100 |
| 45 | 515 | 515 | 4.1 | 95.9 | 95-100 |
| 22.4 | 4263 | 4778 | 37.6 | 62.4 | 60-80 |
| 11.2 | 2284 | 7062 | 55.5 | 44.5 | 40-60 |
| 4.75 | 1963 | 9025 | 71.0 | 29.0 | 25-40 |
| 2.36 | 1245 | 10270 | 80.8 | 19.2 | 15-30 |
| 0.600 | 1165 | 11435 | 89.9 | 10.1 | 8-22 |
| 0.075 | 948 | 12383 | 97.4 | 2.6 | 0-8 |

**Note:**

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 90 days from the date of testing.

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory


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## DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

| | |
|---|---|
| Client | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| Agency | **Sri. G.N Ramesh,** Contractor, Bangalore. |
| Name of Work | Potholes filling in main and cross roads of Bagalagunte in Ward No.14 in Dasarahalli Sub Division, BBMP, Bangalore. |
| Technical Reference | IS 2386(Part 1) 1963 (RA 2011) |
| Type of Mix | Wet Mix Macadam |
| Sample ID | WMM Layer |
| Date of Testing | 26.08.2017 |

Result : Flakiness Index = **11.62%**

Elongation Index = **13.47%**

**Result : Combined Flakiness & Elongation index** **25.09%**

**Comments:**

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

**Note:**

→ This test report should not be reproduced except in full, without written approval of the laboratory
→ The results indicated above are based on the tests carried out on the samples received in the laboratory
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For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ
ಕೆ.ದಾಸರಹಳ್ಳಿ ಉಪ-ವಿಭಾಗ
ಬಾಗಲಗುಂಟೆ, ಬಿಬಿಎಂಪಿ
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## Aggregate Impact Value
IS: 2386 Part IV

| | |
|---|---|
| **Client** | **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore. |
| **Agency** | **Sri. G.N Ramesh,** Contractor, Bangalore. |
| **Name of the Work** | Potholes filling in main and cross roads of Bagalagunte in Ward No.14 in Dasarahalli Sub Division, BBMP, Bangalore. |
| **Type of Mix** | Wet Mix macadam |
| **Date of Testing** | 26.08.2017 |

| Sl No. | Details | Trial No. | | | Average |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | |
| 1 | Total weight of aggregate sample filling the cylindrical measure = $W_1$ g | 371 | 373 | 375 | |
| 2 | Weight of agregate passing 2.36 mm sieve after the test = $W_2$ g | 84 | 86 | 88 | |
| 3 | Weight of aggregate retained 2.36 mm sieve after the test = $W_3$ g | 287 | 287 | 287 | |
| 4 | Aggregate Impact value = percent fines<br>100* ($W_2/W_1$)% | 22.64 | 23.06 | 23.47 | **23.05** |

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

**Note:**

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## ATTERBERG LIMITS TEST FOR WMM
## MORTH TABLE-400-11

Client : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

Agency : **Sri. G.N Ramesh,** Contractor, Bangalore.

Name of Work : Potholes filling in main and cross roads of Bagalagunte in Ward No.14 in Dasarahalli Sub Division, BBMP, Bangalore.

Date of Testing : 26.08.2017

Material Type : Wet Mix Macadam

**As per MORTH Table 400-13**

| Sl. No. | Particulars | Test Results | Standards as per Specifications |
|---|---|---|---|
| 1 | Liquid Limit | 22.00 | - |
| 2 | Plasticity Index, % | Non Plastic | 6.0% Maximum. |

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